

## **A Slice of Life in My Virtual Community**

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I'm a writer, so I spend a lot of time alone in a room with my words and my thoughts. On occasion, I venture outside to interview people or to find information. After work, I reenter the human community, via my family, my neighborhood, my circle of acquaintances. But that regime left me feeling isolated and lonely during the working day, with few opportunities to expand my circle of friends. For the past seven years, however, I have participated in a wide-ranging, intellectually stimulating, professionally rewarding, sometimes painful, and often intensely emotional ongoing interchange with dozens of new friends, hundreds of colleagues, thousands of acquaintances. And I still spend many of my days in a room, physically isolated. My mind, however, is linked with a worldwide collection of like-minded (and not so like-minded) souls: My virtual community.

Virtual communities emerged from a surprising intersection of humanity and technology. When the ubiquity of the world telecommunications network is combined with the information-structuring and storing capabilities of computers, a new communication medium becomes possible. As we've learned from the history of the telephone, radio, television, people can adopt new communication media and redesign their way of life with surprising rapidity.

Computers, modems, and communication networks furnish the technological infrastructure of computer-mediated communication (CMC); cyberspace is the conceptual space where words and human relationships, data and wealth and power are manifested by people using CMC technology; virtual communities are cultural aggregations that emerge when enough people bump into each other often enough in cyberspace.

A virtual community as they exist today is a group of people who may or may not meet one another face to face, and who exchange words and ideas through the mediation of computer bulletin boards and networks. In cyberspace, we chat and argue, engage in intellectual intercourse, perform acts of commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games and metagames, flirt, create a little high art and a lot of idle talk. We do everything people do when people get together, but we do it with words on computer screens, leaving our bodies behind. Millions of us have already built communities where our identities commingle and interact electronically, independent of local time or location. The way a few of us live now might be the way a larger population will live, decades hence.

The pioneers are still out there exploring the frontier, the borders of the domain have yet to be determined, or even the shape of it, or the best way to find one's way in it. But people are using the technology of computer-mediated communications CMC technology to do things with each other that weren't possible before. Human behavior in cyberspace, as we can observe it and participate in it today, is going to be a crucially important factor. The ways in which people use CMC always will be rooted in human needs, not hardware or software.

If the use of virtual communities turns out to answer a deep and compelling need in people, and not just snag onto a human foible like pinball or pac-man, today's small

online enclaves may grow into much larger networks over the next twenty years. The potential for social change is a side-effect of the trajectory of telecommunications and computer industries, as it can be forecast for the next ten years. This odd social revolution -- communities of people who may never or rarely meet face to face -- might piggyback on the technologies that the biggest telecommunication companies already are planning to install over the next ten years.

It is possible that the hardware and software of a new global telecommunications infrastructure, orders of magnitude more powerful than today's state of the art, now moving from the laboratories to the market, will expand the reach of this spaceless place throughout the 1990s to a much wider population than today's hackers, technologists, scholars, students, and enthusiasts. The age of the online pioneers will end soon, and the cyberspace settlers will come en-masse. Telecommuters who might have thought they were just working from home and avoiding one day of gridlock on the freeway will find themselves drawn into a whole new society. Students and scientists are already there, artists have made significant inroads, librarians and educators have their own pioneers as well, and political activists of all stripes have just begun to discover the power of plugging a computer into a telephone. When today's millions become tens and hundreds of millions, perhaps billions, what kind of place, and what kind of model for human behavior will they find?

Today's bedroom electronic bulletin boards, regional computer conferencing systems, global computer networks offer clues to what might happen when more powerful enabling technology comes along. The hardware for amplifying the computing and communication capacity of every home on the world-grid is in the pipeline, although the ultimate applications are not yet clear. We'll be able to transfer the Library of Congress from any point on the globe to any another point in seconds, upload and download full-motion digital video at will. But is that really what people are likely to do with all that bandwidth and computing power? Some of the answers have to come from the behavioral rather than the technological part of the system. How will people actually use the desktop supercomputers and multimedia telephones that the engineers tell us we'll have in the near future.

One possibility is that people are going to do what people always do with a new communication technology: use it in ways never intended or foreseen by its inventors, to turn old social codes inside out and make new kinds of communities possible. CMC will change us, and change our culture, the way telephones and televisions and cheap video cameras changed us -- by altering the way we perceive and communicate. Virtual communities transformed my life profoundly, years ago, and continue to do so.

### **A Cybernaut's Eye View**

The most important clues to the shape of the future at this point might not be found in looking more closely at the properties of silicon, but in paying attention to the ways people need to, fail to, and try to communicate with one another. Right now, some people are convinced that spending hours a day in front of a screen, typing on a keyboard, fulfills in some way our need for a community of peers. Whether we have discovered something wonderful or stumbled into something insidiously unwonderful, or both, the fact that people want to use CMC to meet other people and experiment with identity are valuable signposts to possible futures. Human behavior in cyberspace, as we can observe it today

on the nets and in the BBSs, gives rise to important questions about the effects of communication technology on human values. What kinds of humans are we becoming in an increasingly computer-mediated world, and do we have any control over that transformation? How have our definitions of "human" and "community" been under pressure to change to fit the specifications of a technology-guided civilization?

Fortunately, questions about the nature of virtual communities are not purely theoretical, for there is a readily accessible example of the phenomenon at hand to study. Millions of people now inhabit the social spaces that have grown up on the world's computer networks, and this previously invisible global subculture has been growing at a monstrous rate recently (eg, the Internet growing by 25% per month).

I've lived here myself for seven years; the WELL and the net have been a regular part of my routine, like gardening on Sunday, for one sixth of my life thus far. My wife and daughter long ago grew accustomed to the fact that I sit in front of my computer early in the morning and late at night, chuckling and cursing, sometimes crying, about something I am reading on the computer screen. The questions I raise here are not those of a scientist, or of a polemicist who has found an answer to something, but as a user -- a nearly obsessive user -- of CMC and a deep mucker-about in virtual communities. What kind of people are my friends and I becoming? What does that portend for others?

If CMC has a potential, it is in the way people in so many parts of the net fiercely defend the use of the term "community" to describe the relationships we have built online. But fierceness of belief is not sufficient evidence that the belief is sound. Is the aura of community an illusion? The question has not been answered, and is worth asking. I've seen people hurt by interactions in virtual communities. Is telecommunication culture capable of becoming something more than what Scott Peck calls a "pseudo-community," where people lack the genuine personal commitments to one another that form the bedrock of genuine community? Or is our notion of "genuine" changing in an age where more people every day live their lives in increasingly artificial environments? New technologies tend to change old ways of doing things. Is the human need for community going to be the next technology commodity?

I can attest that I and thousands of other cybersnobs know that what we are looking for, and finding in some surprising ways, is not just information, but instant access to ongoing relationships with a large number of other people. Individuals find friends and groups find shared identities online, through the aggregated networks of relationships and commitments that make any community possible. But are relationships and commitments as we know them even possible in a place where identities are fluid? The physical world, known variously as "IRL" ("In Real Life"), or "offline," is a place where the identity and position of the people you communicate with are well known, fixed, and highly visual. In cyberspace, everybody is in the dark. We can only exchange words with each other -- no glances or shrugs or ironic smiles. Even the nuances of voice and intonation are stripped away. On top of the technology-imposed constraints, we who populate cyberspaces deliberately experiment with fracturing traditional notions of identity by living as multiple simultaneous personae in different virtual neighborhoods.

We reduce and encode our identities as words on a screen, decode and unpack the identities of others. The way we use these words, the stories (true and false) we tell about ourselves (or about the identity we want people to believe us to be) is what determines our identities in cyberspace. The aggregation of personae, interacting with each other,

determines the nature of the collective culture. Our personae, constructed from our stories of who we are, use the overt topics of discussion in a BBS or network for a more fundamental purpose, as means of interacting with each other. And all this takes place on both public and private levels, in many-to-many open discussions and one-to-one private electronic mail, front stage role-playing and backstage behavior.

When I'm online, I cruise through my conferences, reading and replying in topics that I've been following, starting my own topics when the inspiration or need strikes me. Every few minutes, I get a notice on my screen that I have incoming mail. I might decide to wait to read the mail until I'm finished doing something else, or drop from the conference into the mailer, to see who it is from. At the same time that I am participating in open discussion in conferences and private discourse in electronic mail, people I know well use "sends" -- a means of sending one or two quick sentences to my screen without the intervention of an electronic mail message. This can be irritating before you get used to it, since you are either reading or writing something else when it happens, but eventually it becomes a kind of rhythm: different degrees of thoughtfulness and formality happen simultaneously, along with the simultaneous multiple personae. Then there are public and private conferences that have partially overlapping memberships. CMC offers tools for facilitating all the various ways people have discovered to divide and communicate, group and subgroup and regroup, include and exclude, select and elect.

When a group of people remain in communication with one another for extended periods of time, the question of whether it is a community arises. Virtual communities might be real communities, they might be pseudocommunities, or they might be something entirely new in the realm of social contracts, but I believe they are in part a response to the hunger for community that has followed the disintegration of traditional communities around the world.

Social norms and shared mental models have not emerged yet, so everyone's sense of what kind of place cyberspace is can vary widely, which makes it hard to tell whether the person you are communicating with shares the same model of the system within which you are communicating. Indeed, the online acronym YMMV ("Your Mileage May Vary") has become shorthand for this kind of indeterminacy of shared context. For example, I know people who use vicious online verbal combat as a way of blowing off steam from the pressures of their real life -- "sport hassling" -- and others who use it voyeuristically, as a text-based form of real-life soap-opera. To some people, it's a game. And I know people who feel as passionately committed to our virtual community and the people in it (or at least some of the people in it) as our nation, occupation, or neighborhood. Whether we like it or not, the communitarians and the venters, the builders and the vandals, the egalitarians and the passive-aggressives, are all in this place together. The diversity of the communicating population is one of the defining characteristics of the new medium, one of its chief attractions, the source of many of its most vexing problems.

Is the prospect of moving en-masse into cyberspace in the near future, when the world's communication network undergoes explosive expansion of bandwidth, a beneficial thing for entire populations to do? In which ways might the growth of virtual communities promote alienation? How might virtual communities facilitate conviviality? Which social structures will dissolve, which political forces will arise, and which will lose power? These are questions worth asking now, while there is still time to shape the

future of the medium. In the sense that we are traveling blind into a technology-shaped future that might be very different from today's culture, direct reports from life in different corners of the world's online cultures today might furnish valuable signposts to the territory ahead.

Since the summer of 1985, I've spent an average of two hours a day, seven days a week, often when I travel, plugged into the WELL (Whole Earth 'Lectronic Link) via a computer and a telephone line, exchanging information and playing with attention, becoming entangled In Real Life, with a growing network of similarly wired-in strangers I met in cyberspace. I remember the first time I walked into a room full of people (IRL) whose faces were completely unknown to me, but who knew many intimate details of my history, and whose own stories I knew very well. I had contended with these people, shot the breeze around the electronic water cooler, shared alliances and formed bonds, fallen off my chair laughing with them, become livid with anger at these people, but I had not before seen their faces.

I found this digital watering hole for information-age hunters and gatherers the same way most people find such places -- I was lonely, hungry for intellectual and emotional companionship, although I didn't know it. While many commuters dream of working at home, telecommuting, I happen to know what it's like to work that way. I never could stand to commute or even get out of my pajamas if I didn't want to, so I've always worked at home. It has its advantages and its disadvantages. Others like myself also have been drawn into the online world because they shared with me the occupational hazard of the self-employed, home-based symbolic analyst of the 1990s -- isolation. The kind of people that Robert Reich, call "symbolic analysts" are natural matches for online communities: programmers, writers, freelance artists and designers, independent radio and television producers, editors, researchers, librarians. People who know what to do with symbols, abstractions, and representations, but who sometimes find themselves spending more time with keyboards and screens than human companions.

I've learned that virtual communities are very much like other communities in some ways, deceptively so to those who assume that people who communicate via words on a screen are in some way aberrant in their communication skills and human needs. And I've learned that virtual communities are very much not like communities in some other ways, deceptively so to those who assume that people who communicate via words on a screen necessarily share the same level of commitment to each other in real life as more traditional communities. Communities can emerge from and exist within computer-linked groups, but that technical linkage of electronic personae is not sufficient to create a community.

### **Social Contracts, Reciprocity, and Gift Economies in Cyberspace**

The network of communications that constitutes a virtual community can include the exchange of information as a kind of commodity, and the economic implications of this phenomenon are significant; the ultimate social potential of the network, however, lies not solely in its utility as an information market, but in the individual and group relationships that can happen over time. When such a group accumulates a sufficient number of friendships and rivalries, and witnesses the births, marriages, and deaths that bond any other kind of community, it takes on a definite and profound sense of place in people's minds. Virtual communities usually have a geographically local focus, and often

have a connection to a much wider domain. The local focus of my virtual community, the WELL, is the San Francisco Bay Area; the wider locus consists of hundreds of thousands of other sites around the world, and millions of other communitarians, linked via exchanges of messages into a meta-community known as "the net."

The existence of computer-linked communities was predicted twenty years ago by J.C.R. Licklider and Robert Taylor, who as research directors for the Department of Defense, set in motion the research that resulted in the creation of the first such community, the ARPAnet: "What will on-line interactive communities be like?" Licklider and Taylor wrote, in 1968: "In most fields they will consist of geographically separated members, sometimes grouped in small clusters and sometimes working individually. They will be communities not of common location, but of common interest..."

My friends and I sometimes believe we are part of the future that Licklider dreamed about, and we often can attest to the truth of his prediction that "life will be happier for the on-line individual because the people with whom one interacts most strongly will be selected more by commonality of interests and goals than by accidents of proximity." I still believe that, but I also know that life also has turned out to be unhappy at times, intensely so in some circumstances, because of words on a screen. Events in cyberspace can have concrete effects in real life, of both the pleasant and less pleasant varieties. Participating in a virtual community has not solved all of life's problems for me, but it has served as an aid, a comfort and an inspiration at times; at other times, it has been like an endless, ugly, long-simmering family brawl.

I've changed my mind about a lot of aspects of the WELL over the years, but the "sense of place" is still as strong as ever. As Ray Oldenburg revealed in "The Great Good Place," there are three essential places in every person's life: the place they live, the place they work, and the place they gather for conviviality. Although the casual conversation that takes place in cafes, beauty shops, pubs, town squares is universally considered to be trivial, "idle talk," Oldenburg makes the case that such places are where communities can arise and hold together. When the automobile-centric, suburban, highrise, fast food, shopping mall way of life eliminated many of these "third places," the social fabric of existing communities shredded. It might not be the same kind of place that Oldenburg had in mind, but so many of his descriptions of "third places" could also describe the WELL.

The feeling of logging into the WELL for just a minute or two, dozens of times a day is very similar to the feeling of peeking into the cafe, the pub, the common room, to see who's there, and whether you want to stay around for a chat. Indeed, in all the hundreds of thousands of computer systems around the world that use the Unix operating system, as does the WELL, the most widely used command is the one that shows you who is online. Another widely used command is the one that shows you a particular user's biography.

I visit the WELL both for the sheer pleasure of communicating with my newfound friends, and for its value as a practical instrument for gathering information on subjects that are of momentary or enduring importance, from childcare to neuroscience, technical questions on telecommunications to arguments on philosophical, political, or spiritual subjects. It's a bit like a neighborhood pub or coffee shop. It's a little like a salon, where I can participate in a hundred ongoing conversations with people who don't care what I

look like or sound like, but who do care how I think and communicate. There are seminars and wordfights in different corners. And it's all a little like a groupmind, where questions are answered, support is given, inspiration is provided, by people I may have never heard from before, and whom I may never meet face to face.

Because we cannot see one another, we are unable to form prejudices about others before we read what they have to say: Race, gender, age, national origin and physical appearance are not apparent unless a person wants to make such characteristics public. People who are thoughtful but who are not quick to formulate a reply often do better in CMC than face to face or over the telephone. People whose physical handicaps make it difficult to form new friendships find that virtual communities treat them as they always wanted to be treated -- as thinkers and transmitters of ideas and feeling beings, not carnal vessels with a certain appearance and way of walking and talking (or not walking and not talking). Don't mistake this filtration of appearances for dehumanization: Words on a screen are quite capable of moving one to laughter or tears, of evoking anger or compassion, of creating a community from a collection of strangers.

From my informal research into virtual communities around the world, I have found that enthusiastic members of virtual communities in Japan, England, and the US agree that "increasing the diversity of their circle of friends" was one of the most important advantages of computer conferencing. CMC is a way to meet people, whether or not you feel the need to affiliate with them on a community level, but the way you meet them has an interesting twist: In traditional kinds of communities, we are accustomed to meeting people, then getting to know them; in virtual communities, you can get to know people and then choose to meet them. In some cases, you can get to know people who you might never meet on the physical plane.

How does anybody find friends? In the traditional community, we search through our pool of neighbors and professional colleagues, of acquaintances and acquaintances of acquaintances, in order to find people who share our values and interests. We then exchange information about one another, disclose and discuss our mutual interests, and sometimes we become friends. In a virtual community we can go directly to the place where our favorite subjects are being discussed, then get acquainted with those who share our passions, or who use words in a way we find attractive. In this sense, the topic is the address: You can't simply pick up a phone and ask to be connected with someone who wants to talk about Islamic art or California wine, or someone with a three year old daughter or a 30 year old Hudson; you can, however, join a computer conference on any of those topics, then open a public or private correspondence with the previously-unknown people you find in that conference. You will find that your chances of making friends are magnified by orders of magnitude over the old methods of finding a peer group.

You can be fooled about people in cyberspace, behind the cloak of words. But that can be said about telephones or face to face communications, as well; computer-mediated communications provide new ways to fool people, and the most obvious identity-swindles will die out only when enough people learn to use the medium critically. Sara Kiesler noted that the word "phony" is an artifact of the early years of the telephone, when media-naive people were conned by slick talkers in ways that wouldn't deceive an eight-year old with a cellular phone today.

There is both an intellectual and an emotional component to CMC. Since so many members of virtual communities are the kind of knowledge-based professionals whose professional standing can be enhanced by what they know, virtual communities can be practical, coldblooded instruments. Virtual communities can help their members cope with information overload. The problem with the information age, especially for students and knowledge workers who spend their time immersed in the info-flow, is that there is too much information available and no effective filters for sifting the key data that are useful and interesting to us as individuals. Programmers are trying to design better and better "software agents" that can seek and sift, filter and find, and save us from the awful feeling one gets when it turns out that the specific knowledge one needs is buried in 15,000 pages of related information.

The first software agents are now becoming available (eg, WAIS, Rosebud), but we already have far more sophisticated, if informal, social contracts among groups of people that allow us to act as software agents for one another. If, in my wanderings through information space, I come across items that don't interest me but which I know one of my worldwide loose-knit affinity group of online friends would appreciate, I send the appropriate friend a pointer, or simply forward the entire text (one of the new powers of CMC is the ability to publish and converse with the same medium). In some cases, I can put the information in exactly the right place for 10,000 people I don't know, but who are intensely interested in that specific topic, to find it when they need it. And sometimes, 10,000 people I don't know do the same thing for me. This unwritten, unspoken social contract, a blend of strong-tie and weak-tie relationships among people who have a mixture of motives, requires one to give something, and enables one to receive something. I have to keep my friends in mind and send them pointers instead of throwing my informational discards into the virtual scrap-heap. It doesn't take a great deal of energy to do that, since I have to sift that information anyway in order to find the knowledge I seek for my own purposes; it takes two keystrokes to delete the information, three keystrokes to forward it to someone else. And with scores of other people who have an eye out for my interests while they explore sectors of the information space that I normally wouldn't frequent, I find that the help I receive far outweighs the energy I expend helping others: A marriage of altruism and self-interest. The first time I learned about that particular cyberspace power was early in the history of the WELL, when I was invited to join a panel of experts who advise the U.S. Congress Office of Technology Assessment (OTA). The subject of the assessment was "Communication Systems for an Information Age." I'm not an expert in telecommunication technology or policy, but I do know where to find a group of such experts, and how to get them to tell me what they know. Before I went to Washington for my first panel meeting, I opened a conference in the WELL and invited assorted information-freaks, technophiles, and communication experts to help me come up with something to say. An amazing collection of minds flocked to that topic, and some of them created whole new communities when they collided. By the time I sat down with the captains of industry, government advisers, and academic experts at the panel table, I had over 200 pages of expert advice from my own panel. I wouldn't have been able to integrate that much knowledge of my subject in an entire academic or industrial career, and it only took me (and my virtual community) a few minutes a day for six weeks. I have found the WELL to be an outright magical resource, professionally. An editor or producer or client can call and ask me if I know

much about the Constitution, or fiber optics, or intellectual property. "Let me get back to you in twenty minutes," I say, reaching for the modem. In terms of the way I learned to use the WELL to get the right piece of information at the right time, I'd say that the hours I've spent putting information into the WELL turned out to be the most lucrative professional investments I've ever made.

The same strategy of nurturing and making use of loose information-sharing affiliations across the net can be applied to an infinite domain of problem areas, from literary criticism to software evaluation. It's a neat way for a sufficiently large, sufficiently diverse group of people to multiply their individual degree of expertise, and I think it could be done even if the people aren't involved in a community other than their company or their research specialty. I think it works better when the community's conceptual model of itself is more like barn-raising than horse-trading, though. Reciprocity is a key element of any market-based culture, but the arrangement I'm describing feels to me more like a kind of gift economy where people do things for one another out of a spirit of building something between them, rather than a spreadsheet-calculated quid pro quo. When that spirit exists, everybody gets a little extra something, a little sparkle, from their more practical transactions; different kinds of things become possible when this mindset pervades. Conversely, people who have valuable things to add to the mix tend to keep their heads down and their ideas to themselves when a mercenary or hostile zeitgeist dominates an online community.

I think one key difference between straightforward workaday reciprocity is that in the virtual community I know best, one valuable currency is knowledge, elegantly presented. Wit and use of language are rewarded in this medium, which is biased toward those who learn how to manipulate attention and emotion with the written word. Sometimes, you give one person more information than you would give another person in response to the same query, simply because you recognize one of them to be more generous or funny or to-the-point or agreeable to your political convictions than the other one.

If you give useful information freely, without demanding tightly-coupled reciprocity, your requests for information are met more swiftly, in greater detail, than they would have been otherwise. The person you help might never be in a position to help you, but someone else might be. That's why it is hard to distinguish idle talk from serious context-setting. In a virtual community, idle talk is context-setting. Idle talk is where people learn what kind of person you are, why you should be trusted or mistrusted, what interests you. An agora is more than the site of transactions; it is also a place where people meet and size up one another. A market depends on the quality of knowledge held by the participants, the buyers and sellers, about price and availability and a thousand other things that influence business; a market that has a forum for informal and back-channel communications is a better-informed market. The London Stock Exchange grew out of the informal transactions in a coffee-house; when it became the London International Stock Exchange a few years ago, and abolished the trading-room floor, the enterprise lost something vital in the transition from an old room where all the old boys met and cut their deals to the screens of thousands of workstations scattered around the world.

The context of the informal community of knowledge sharers grew to include years of both professional and personal relationships. It is not news that the right network of people can serve as an inquiry research system: You throw out the question, and somebody on the net knows the answer. You can make a game out of it, where you gain

symbolic prestige among your virtual peers by knowing the answer. And you can make a game out of it among a group of people who have dropped out of their orthodox professional lives, where some of them sell these information services for exorbitant rates, in order to participate voluntarily in the virtual community game. When the WELL was young and growing more slowly than it is now, such knowledge-potlatching had a kind of naively enthusiastic energy. When you extend the conversation -- several dozen different characters, well-known to one another from four or five years of virtual hanging-out, several hours a day -- it gets richer, but not necessarily "happier." Virtual communities have several drawbacks in comparison to face-to-face communication, disadvantages that must be kept in mind if you are to make use of the power of these computer-mediated discussion groups. The filtration factor that prevents one from knowing the race or age of another participant also prevents people from communicating the facial expressions, body language, and tone of voice that constitute the inaudible but vital component of most face to face communications. Irony, sarcasm, compassion, and other subtle but all-important nuances that aren't conveyed in words alone are lost when all you can see of a person are words on a screen.

It's amazing how the ambiguity of words in the absence of body language inevitably leads to online misunderstandings. And since the physical absence of other people also seems to loosen some of the social bonds that prevent people from insulting one another in person, misunderstandings can grow into truly nasty stuff before anybody has a chance to untangle the original miscommunication. Heated diatribes and interpersonal incivility that wouldn't crop up often in face to face or even telephone discourse seem to appear with relative frequency in computer conferences. The only presently available antidote to this flaw of CMC as a human communication medium is widespread knowledge of this flaw -- aka "netiquette."

Online civility and how to deal with breaches of it is a topic unto itself, and has been much-argued on the WELL. Degrees of outright incivility constitute entire universes such as alt.flame, the Usenet newsgroup where people go specifically to spend their days hurling vile imprecations at one another. I am beginning to suspect that the most powerful and effective defense an online community has in the face of those who are bent on disruption might be norms and agreements about withdrawing attention from those who can't abide by even loose rules of verbal behavior. "If you continue doing that," I remember someone saying to a particularly persistent would-be disrupter, "we will stop paying attention to you." This is technically easy to do on Usenet, where putting the name of a person or topic header in a "kill file" (aka "bozo filter") means you will never see future contributions from that person or about that topic. You can simply choose to not see any postings from Rich Rosen, or that feature the word "abortion" in the title. A society in which people can remove one another, or even entire topics of discussion, from visibility. The WELL does not have a bozo filter, although the need for one is a topic of frequent discussion.

### Who Is The WELL?

One way to know what the WELL is like is to know something about the kind of people who use it. It has roots in the San Francisco Bay Area, and in two separate cultural revolutions that took place there in past decades. The Whole Earth Catalog originally emerged from the counterculture as Stewart Brand's way of providing access to tools and ideas to all the communes who were exploring alternate ways of life in the forests of Mendocino or the high deserts outside Santa Fe. The Whole Earth Catalogs and the

magazines they spawned, Co-Evolution Quarterly and Whole Earth Review, have outlived the counterculture itself, since they are still alive and raising hell after nearly 25 years. For many years, the people who have been exploring alternatives and are open to ideas that you don't find in the mass media have found themselves in cities instead of rural communes, where their need for new tools and ideas didn't go away.

The Whole Earth Catalog crew received a large advance in the mid-1980s to produce an updated version, a project involving many geographically-separated authors and editors, many of whom were using computers. They bought a minicomputer and the license to Picospan, a computer conferencing program, leased an office next to the magazine's office, leased incoming telephone lines, set up modems, and the WELL was born in 1985. The idea from the beginning was that the founders weren't sure what the WELL would become, but they would provide tools for people to build it into something useful. It was consciously a cultural experiment, and the business was designed to succeed or fail on the basis of the results of the experiment. The person Stewart Brand chose to be the WELL's first director -- technician, manager, innkeeper, and bouncer -- was Matthew McClure, not-coincidentally a computer-savvy veteran of The Farm, one of the most successful of the communes that started in the sixties. Brand and McClure started a low-rules, high-tone discussion, where savvy networkers, futurists, misfits who had learned how to make our outsidership work for us, could take the technology of CMC to its cultural limits.

The Whole Earth network -- the granola-eating utopians, the solar-power enthusiasts, serious ecologists and the space-station crowd, immortalists, Biospherians, environmentalists, social activists -- was part of the core population from the beginning. But there were a couple of other key elements. One was the subculture that happened ten years after the counterculture era -- the personal computer revolution. Personal computers and the PC industry were created by young iconoclasts who wanted to have whizzy tools and change the world. Whole Earth had honored them, including the outlaws among them, with the early Hacker's Conferences. The young computer wizards, and the grizzled old hands who were still messing with mainframes, showed up early at the WELL because the guts of the system itself -- the Unix operating system and "C" language programming code -- were available for tinkering by responsible craftsmen.

A third cultural element that made up the initial mix of the WELL, which has drifted from its counterculture origins in many ways, were the deadheads. Books and theses have been written about the subculture that have grown up around the band, the Grateful Dead. The deadheads have a strong feeling of community, but they can only manifest it en masse when the band has concerts. They were a community looking for a place to happen when several technology-savvy deadheads started a "Grateful Dead Conference" on the WELL. GD was so phenomenally successful that for the first several years, deadheads were by far the single largest source of income for the enterprise.

Along with the other elements came the first marathon swimmers in the new currents of the information streams, the futurists and writers and journalists. The New York Times, Business Week, the San Francisco Chronicle, Time, Rolling Stone, Byte, the Wall Street Journal all have journalists that I know personally who drop into the WELL as a listening post. People in Silicon Valley lurk to hear loose talk among the pros. Journalists tend to attract other journalists, and the purpose of journalists is to attract everybody else: most people have to use an old medium to hear news about the arrival of a new medium.

Things changed, both rapidly and slowly, in the WELL. There were about 600 members of the WELL when I joined, in the summer of 1985. It seemed that then, as now, the usual ten percent of the members did 80% of the talking. Now there are about 6000 people, with a net gain of about a hundred a month. There do seem to be more women than other parts of cyberspace. Most of the people I meet seem to be white or Asian; African-Americans aren't missing, but they aren't conspicuous or even visible. If you can fake it, gender and age are invisible, too. I'd guess the WELL consists of about 80% men, 20% women. I don't know whether formal demographics would be the kind of thing that most WELL users would want to contribute to. It's certainly something we'd discuss, argue, debate, joke about.

One important social rule was built into Picospan, the software that the WELL lives inside: Nobody is anonymous. Everybody is required to attach their real "userid" to their postings. It is possible to use pseudonyms to create alternate identities, or to carry metamessages, but the pseudonyms are always linked in every posting to the real userid. So individual personae -- whether or not they correspond closely to the real person who owns the account -- are responsible for the words they post. In fact, the first several years, the screen that you saw when you reached the WELL said "You own your own words." Stewart Brand, the WELL's co-founder likes epigrams: "Whole Earth," "Information wants to be free." "You own your own words." Like the best epigrams, "You own your own words" is open to multiple interpretations. The matter of responsibility and ownership of words is one of the topics WELLbeings argue about endlessly, so much that the phrase has been abbreviated to "YOYOW," As in, "Oh no, another YOYOW debate."

Who are the WELL members, and what do they talk about? I can tell you about the individuals I have come to know over six years, but the WELL has long since been something larger than the sum of everybody's friends. The characteristics of the pool of people who tune into this electronic listening post, whether or not they every post a word in public, is a strong determinant of the flavor of the "place." There's a cross-sectional feeling of "who are we?" that transcends the intersecting and non-intersecting rings of friends and acquaintances each individual develops. My Neighborhood On The WELL Every CMC system gives users tools for creating their own sense of place, by customizing the way they navigate through the database of conferences, topics, and responses. A conference or newsgroup is like a place you go. If you go to several different places in a fixed order, it seems to reinforce the feeling of place by creating a customized neighborhood that is also shared by others. You see some of the same users in different parts of the same neighborhood. Some faces, you see only in one context -- the parents conference, the Grateful Dead tours conference, the politics or sex conference.

My home neighborhood on the WELL is reflected in my ".cflist," the file that records my preferences about the order of conferences I visit. It is always possible to go to any conference with a command, but with a .cflist you structure your online time by going from conference to specified conference at regular intervals, reading and perhaps responding in several ongoing threads in several different places. That's the part of the art of discourse where I have found that the computer adds value to the intellectual activity of discussing formally distinct subjects asynchronously, from different parts of the world, over extending periods, by enabling groups to structure conversations by topic, over time.

My .cflist starts, for sentimental reasons, with the Mind conference, the first one I hosted on the WELL, since 1985. I've changed my .cflist hundreds of times over the

years, to add or delete conferences from my regular neighborhood, but I've always kept Mind in the lede. The entry banner screen for the Mind conference used to display to each user the exact phase of the moon in numbers and ASCII graphics every time they logged in to the conference. But the volunteer programmer who had created the "phoon" program had decided to withdraw it, years later, in a dispute with WELL management. There is often a technological fix to a social problem within this particular universe. Because the WELL seems to be an intersection of many different cultures, there have been many experiments with software tools to ameliorate problems that seemed to crop up between people, whether because of the nature of the medium or the nature of the people. A frighteningly expensive pool of talent was donated by volunteer programmers to create tools and even weapons for WELL users to deal with each other. People keep giving things to the WELL, and taking them away. Offline readers and online tools by volunteer programmers gave others increased power to communicate.

The News conference is what's next. This is the commons, the place where the most people visit the most often, where the most outrageous off-topic proliferation is least pernicious, where the important announcements about the system or social events or major disputes or new conferences are announced. When an earthquake or fire happens, News is where you want to go. Immediately after the 1989 earthquake and during the Oakland fire of 1991, the WELL was a place to check the damage to the local geographic community, lend help to those who need it, and get first-hand reports. During Tianamen square, the Gulf War, the Soviet Coup, the WELL was a media-funnel, with snippets of email from Tel-Aviv and entire newsgroups fed by fax machines in China, erupting in News conference topics that grew into fast-moving conferences of their own. During any major crisis in the real world, the routine at our house is to turn on CNN and log into the WELL.

After News is Hosts, where the hottest stuff usually happens. The hosts community is a story in itself. The success of the WELL in its first five years, all would agree, rested heavily on the efforts of the conference hosts -- online characters who had created the character of the first neighborhoods and kept the juice flowing between one another all over the WELL, but most pointedly in the Hosts conference. Some spicy reading in the Archives conference originated from old hosts' disputes - and substantial arguments about the implications of CMC for civil rights, intellectual property, censorship, by a lot of people who know what they are talking about, mixed liberally with a lot of other people who don't know what they are talking about, but love to talk anyway, via keyboard and screen, for years on end.

In this virtual place, the pillars of the community and the worst offenders of public sensibilities are in the same group -- the hosts. At their best and their worst, this ten percent of the online population put out the words that the other ninety percent keep paying to read. Like good hosts at any social gathering, they make newcomers welcome, keep the conversation flowing, mediate disputes, clean up messes, and throw out miscreants, if need be. A WELL host is part salon keeper, part saloon keeper, part talk-show host, part publisher. The only power to censor or to ban a user is the hosts' power. Policy varies from host to host, and that's the only policy. The only justice for those who misuse that power is the forced participation in weeks of debilitating and vituperative post-mortem.

The hosts community is part long-running soap opera, part town meeting, bar-room brawl, anarchic debating society, creative group mind, bloody arena, union hall, playpen, encounter group. The Hosts conference is extremely general, from technical questions to personal attacks. The Policy conference is supposed to be restricted to matters of what WELL policy is, or ought to be. The part-delusion, part-accurate perception that the hosts and other users have strong influence over WELL policy is part of what feeds debate here, and a strong element in the libertarian reputation of the stereotypical WELLite. After fighting my way through a day's or hour's worth of the Hot New Dispute in News, Hosts, and Policy, I check on the conferences I host -- Info, Virtual Communities, Virtual Reality. After that my cflist directs me, at the press of the return key, to the first new topic or response in the Parenting, Writers, Grateful Dead tours, Telecommunication, Macintosh, Weird, Electronic Frontier Foundation, Whole Earth, Books, Media, Men on the WELL, Miscellaneous, and Unclear conferences.

The social dynamics of the WELL spawn new conferences in response to different kinds of pressures. Whenever a hot interpersonal or doctrinal issue breaks out, for example, people want to stage the brawl or make a dramatic farewell speech or shocking disclosure or serious accusation in the most heavily-visited area of the WELL, which is usually the place that others want to be a Commons -- a place where people from different sub-communities can come to find out what is going on around the WELL, outside the WELL, where they can pose questions to the committee of the whole. When too many discussions of what the WELL's official policy ought to be, about censorship or intellectual property or the way people treat each other, break out, they tended to clutter the place people went to get a quick sense of what is happening outside their neighborhoods. So the Policy conference was born. But then the WELL grew larger and it wasn't just policy but governance and social issues like political correctness or the right of users to determine the social rules of the system. Several years and six thousand more users after the fission of the News and Policy conferences, another conference split off News -- "MetaWELL," a conference was created strictly to discussions about the WELL itself, its nature, its situation (often dire), its future.

Grabbing attention in the Commons is a powerful act. Some people seem drawn to performing there; others burst out there in acts of desperation, after one history of frustration or another. Dealing with people who are so consistently off-topic or apparently deeply grooved into incoherence, long-windedness, scatology, is one of the events that challenges a community to decide what its values really are, or ought to be.

Something is happening here. I'm not sure anybody understands it yet. I know that the WELL and the net is an important part of my life and I have to decide for myself whether this is a new way to make genuine commitments to other human beings, or a silicon-induced illusion of community. I urge others to help pursue that question in a variety of ways, while we have the time. The political dimensions of CMC might lead to situations that would pre-empt questions of other social effects; responses to the need for understanding the power-relationships inherent in CMC are well represented by the Electronic Frontier Foundation and others. We need to learn a lot more, very quickly, about what kind of place our minds are homesteading.

The future of virtual communities is connected to the future of everything else, starting with the most precious thing people have to gain or lose -- political freedom. The part played by communication technologies in the disintegration of communism, the way

broadcast television pre-empted the American electoral process, the power of fax and CMC networks during times of political repression like Tienamen Square and the Soviet Coup attempt, the power of citizen electronic journalism, the power-maneuvering of law enforcement and intelligence agencies to restrict rights of citizen access and expression in cyberspace, all point to the future of CMC as a close correlate of future political scenarios. More important than civilizing cyberspace is ensuring its freedom as a citizen-to-citizen communication and publication medium; laws that infringe equity of access to and freedom of expression in cyberspace could transform today's populist empowerment into yet another instrument of manipulation. Will "electronic democracy" be an accurate description of political empowerment that grows out of the screen of a computer? Or will it become a brilliant piece of disinfotainment, another means of manipulating emotions and manufacturing public opinion in the service of power.

Who controls what kinds of information is communicated in the international networks where virtual communities live? Who censors, and what is censored? Who safeguards the privacy of individuals in the face of technologies that make it possible to amass and retrieve detailed personal information about every member of a large population? The answers to these political questions might make moot any more abstract questions about cultures in cyberspace. Democracy itself depends on the relatively free flow of communications. The following words by James Madison are carved in marble at the United States Library of Congress: "A popular government without popular information, or the means of acquiring it, is but a prologue to a farce or a tragedy, or perhaps both. Knowledge will forever govern ignorance, and a people who mean to be their own governors must arm themselves with the power which knowledge gives." It is time for people to arm themselves with power about the future of CMC technology.

Who controls the market for relationships? Will the world's increasingly interlinked, increasingly powerful, decreasingly costly communications infrastructure be controlled by a small number of very large companies? Will cyberspace be privatized and parcelled out to those who can afford to buy into the auction? If political forces do not seize the high ground and end today's freewheeling exchange of ideas, it is still possible for a more benevolent form of economic control to stunt the evolution of virtual communities, if a small number of companies gain the power to put up toll-roads in the information networks, and smaller companies are not able to compete with them.

Or will there be an open market, in which newcomers like Apple or Microsoft can become industry leaders? The playing field in the global telecommunications industry will never be level, but the degree of individual freedom available through telecommunication technologies in the future may depend upon whether the market for goods and services in cyberspace remains open for new companies to create new uses for CMC.

I present these observations as a set of questions, not as answers. I believe that we need to try to understand the nature of CMC, cyberspace, and virtual communities in every important context -- politically, economically, socially, culturally, cognitively. Each different perspective reveals something that the other perspectives do not reveal. Each different discipline fails to see something that another discipline sees very well. We need to think as teams here, across boundaries of academic discipline, industrial affiliation, nation, to understand, and thus perhaps regain control of, the way human communities are being transformed by communication technologies. We can't do this

solely as dispassionate observers, although there is certainly a huge need for the detached assessment of social science. But community is a matter of the heart and the gut as well as the head. Some of the most important learning will always have to be done by jumping into one corner or another of cyberspace, living there, and getting up to your elbows in the problems that virtual communities face.